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ABSTRACT

Little use has been made of the process of problematic situations as an evaluative measure in studying human relations. This paper reports on work carried out by the author to further research and development of this measure related to human relations. An analysis is made based on three elements which are necessary for defining interest dimensions: (1) the sample of problematic situations, (2) a sampling of alternative courses of action, and (3) the task given the respondent to study. In each of the inventories, the situations consist of short paragraphs depicting a problem in human relations. The problem situations were those that might occur at elementary and high school levels. These were also situations in which the teacher may interact with her students. A rating scale was developed and administered to the groups. Methodology used included varimax rotation, oblique factors and correlations among oblique factors. The questionnaire used in gathering the data on problematic situations is included. (Author/DEP)

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MEASURING HUMAN-RELATIONS ATTITUDES AND VALUES WITH SITUATIONAL INVENTORIES

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Inadequate theory for the assessment of attitudes and values by situational questionnaires has led to shortcomings in choice of dimensions and in technique. Going on this assumption, the investigator made an analysis of task and content. This led to three main predictions and to the development of an improved inventory for revealing instrumental values underlying the judgment of alternatives in human-relations problems in one domain, that of public-school teaching. Three samples completed the form: freshmen at the Ohio State University (N=127); prospective teachers at the Ohio State University (N=115); and prospective teachers at the University of Arkansas (N=79). After two preliminary factor analyses and reduction of number of variables, the investigator did a final series of analyses on 57 items plus 3 instrument-variables. The first stage included the Promax routine and yielded five oblique factors for each sample. Next came a second-order factor analysis of the correlations among the oblique factors. This solution was orthogonal and yielded three factors. The results, with some qualifications, confirmed the predictions of a main bipolar dimension of Inconsiderateness-

Considerateness, of numerous small factors, and of somewhat different patterns of dimensions in different groups. The results also confirmed that a priori classifications resting on a premise of equivalence based upon manifest content are unlikely to stand up empirically. The investigator concluded that the utility of logical and psychological analysis has again been demonstrated, and that the kind of technique as modified here appears to have promise for further development and for use in research and instruction.

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Measures of beliefs about human relations have achieved some standing in applied work and in research. Such measures have served usefully as criteria for evaluating instructional programs, as predictors of performance, and as indicators of theoretical constructs. Scores on certain attitudinal scales, for instance, have given fairly good predictions of teachers' classroom behavior (Stern, 1963).

Of the two basic forms of inventory, general statements and problematic situations, the former has been far more widely used and studied. The latter, despite its intrinsic appeal and technical promise, seems to have been neglected. Partly because the few available examples--Problems in Human Relations (PIHR), Form I, by Dressel, Mayhew and associates (1954), and the Teacher Practices Questionnaire (TPQ), Form 2, by Sorenson, Husek, & Yu (1963)--seemed to need a firmer theoretical foundation, this investigator began a limited program of development and research on such situational devices. This paper is a report of such work. Its general thesis is that careful analysis of the task as well as of the content is essential for generating variables to be measured and for sound test construction.

An attempt at such an analysis follows. It rests on the assumption that three elements of the method of measurement are crucial for defining dimensions of interest: the sample of problematic situations, the sampling of alternative courses of action, and the task given the respondent.

In the inventories named above, the situations consist of short paragraphs each depicting a problem in human relations. In the PIHR these problems range broadly over human relations, while in the TPQ they deal more narrowly with individual pupils whose behavior falls short of the desired. Sampling seems acceptable in the PIHR but too narrow in the TPQ because it concentrates on the individual and omits problems of a group nature.

As to the courses of action sampled, both inventories used an a priori classification. In the PIHR the categories originally were Democratic, Laissez faire, Resort-to-expert, Benevolent autocrat, and Hard-boiled autocrat. Each action was supposed to represent one given point of view. Five actions followed each problem but generally the authors were not able to represent each view in every problem. In the TPQ the actions were to represent "role expectations" as Advisor, Counselor, Disciplinarian, Information giver, Motivator, and Referrer. The authors sampled four roles in each problem. It is the investigator's judgment that each inventory presented rather too narrow an array of alternatives, the common shortcoming being a neglect of group methods of solving problems. In the TPQ especially the fixed role-dimensions restricted unduly the variety of alternatives. One omission

there was the alternative to ignore--an action sometimes highly considerate and effective.

As to the task, whether it requires choice of a single action, rating of each action in a set, or even ranking of a set, it must reduce ultimately to a weighing of alternatives. The PIHR required choice of a single alternative--the task, specifically, "...to select the one proposed solution for each with which you most closely agree." However, while most items did call for a choice of what the person would do, some did ask what his feelings or what his attitude would be in the situation. By asking the person to record only a single judgment per problem, the PIHR loses some important information--namely, the psychological distance, as it were, between the alternative chosen and the next most favored, as well as discrimination among the remaining alternatives; evidence of inconsistencies of judgments within problems; and possible dimensions revealed by correlating judgments of alternative actions across the various problems. The TPQ, requiring a separate judgment of each action in a set on a 5-point scale of appropriateness, is not open to these limitations. But the TPQ, with the PIHR, has the limitation of not separating evidence on means and ends--a matter shortly to be made clear.

A careful analysis of the task is essential for suggesting the variables one can measure. One must ask, "What does the task require?" It requires that the person first read and understand the problematic situation, evaluate alternatives, and, for the more complete form of response, record a separate

judgment for each such given action. This judgment is a rating, revealing directly the attitude toward the action but nothing directly on the ends to be served by that action. What a person reveals are his preferred modes of action which may be summarized as scores based upon a priori or correlational analysis. Following a distinction in philosophy, we may consider these preferred modes as instrumental values to be distinguished from preferred end-states, or terminal values.

Missing from the record is the important basis of the evaluative judgment. It would be misleading to regard a person's reasons for the judgment as the full basis, because the reasons given may be only a part of the basis and even a distortion. Rather more crucial and certainly more definite would be the outcomes the person sees as coming from an action, together with his evaluation of them. Following the theory of decision, we could say that the person judges each action roughly on the basis of expected utilities, or values, associated with expected outcomes of a given action. The expected utilities may be positive, indicating expected benefits, or negative, indicating expected losses, potential risks, and required effort. Furthermore, a given action may ordinarily lead to more than one kind of outcome and a given outcome might have a variety of utilities depending upon the quality at issue.

One may postulate from this analysis of the task that it is not so much the manifest content but rather the underlying basis, particularly the unspecified outcomes with varying utilities, that determines the judgment an individual will actually make. In other words, it is not the "shape" of an action that carries the

important meaning but the function that it is seen to serve. Similar judgments may spring from different underlying values, much like the tenet of motivational theory that similar actions can spring from different motives. Different persons, for example, may favor an action to refer the problem to an expert, but for some the basis is to get rid of the problem and thus save oneself the effort while for others it is to solve the problem in the most constructive way. Because certain courses of action carry plural meanings, it would seem unwise to build measuring scales simply by grouping actions on their gross similarities. Also suspect initially are broad a priori modes as "democratic," "autocratic," and "laissez-faire," for such broad social philosophies would not seem to apply fully to many specific, everyday problematic situations where socio-political considerations as such are negligible. The fact that many specific considerations govern the choice of an action argues against such consistency in application, just as they do against the kind of theory postulating "role expectations."

Largely for the reasons given, such a priori classifications have not worked out as well as intended. The authors of the PIHR settled on one main dimension, the "democratic score." Choice of one action per problem precluded the emergence of other independent dimensions, for the other four attitudes necessarily correlated inversely with the main one. The authors of the TPQ, after a factor analysis, settled on dimensions much like their original, combining two scales into Advice-Information Giver and retaining the other four. Their decisions in factor analysis and

test development, however, were such as to favor the hypothesized role dimensions.

Commendably, the authors of the PIHR and the TPQ did start with some theory rather than leave definition to empirical determination. It is not possible, of course, to derive dimensions entirely from data, for decisions about content--i.e., problems and alternatives--already set bounds on the kinds of variables to emerge. We can see this by considering problematic situations in human relations, which permit only a rather small number of inherent, logically distinct actions. Thus one may try to discuss matters; make some constructive changes in the situation or the human relations; give advice; persuade or "reason with" those involved; refer the problem to someone else; ignore it; or try to suppress it through threats, punishment and the like. These in turn can group into a broad dimension of considerateness--willingness to meet the problem by recognizing, as it were, the right of another for consideration--versus the opposite tendency to avoid the problem and thus deny in some sense the right of another person to be heard or to be helped. Logical analysis, moreover, would suggest that this main dimension be bipolar because certain actions contradict each other. To show consideration of another's point of view, etc., directly contradicts actions of avoiding, denying the problem, punishing, etc.

On the basis of this analysis and with an improved method of measurement, the investigator predicted that the following would result:

1. A broad bipolar main factor of considerateness-inconsiderateness would emerge.

2. Beyond the principal one, numerous fairly small factors would emerge because of the many specific considerations that affect judgments in each situation, but that these would not closely parallel the original dimensions in either the PIHR or the TPQ.

3. Somewhat different patterns of factors would appear in different groups of students depending upon background and curriculum.

Method

The first step was to build a form that could assess beliefs about or attitude toward actions to be taken in problematic situations. For this purpose the investigator set rough specifications, limiting the universe to problems of human relations in the classroom, at the elementary and high-school levels, and requiring that this include some problems in which the teacher had to interact with groups. Sampling of actions included a greater variety than previous authors had used, many chosen from free responses in early trials. Partly to enable comparison with previous studies, the technique of requiring respondents to judge a series of alternatives was carried on. It embodied a scale like Sorenson's: 5--very appropriate, 4--fairly appropriate, 3--so-so or possibly acceptable, 2--fairly inappropriate, and 1--very inappropriate.

After some preliminary trials the instrument took shape as a rating-form with ten problems averaging 15 alternatives (see

Appendix A). Table 1 lists these problems.

Three composite samples completed the form. Sample 1 was a general group of freshmen taking introductory psychology at the Ohio State University (N=127); sample 2, a group of seniors and postgraduate students at Ohio State enrolled in educational psychology and generally preparing for teaching (N=115); and sample 3, seniors at the University of Arkansas preparing to be secondary teachers (N=79).[1] The first sample took the form midway through the term; the other two, at the end.

A principal-components analysis was then done on the intercorrelations among the 150 items, using ones in the diagonal, and then orthogonal rotation with the varimax routine. This led to the dropping of about half the alternatives--mostly near-duplicates and others too complex factorially. A second and like analysis was done on the remaining 74 items but yielding rotations on two through eight possible common factors. A five-factor solution seemed to be satisfactory for each sample. It yielded the two or three important common factors plus a few small ones of use for second-order analysis. The variables for sample 3 included sex as a coded variable and two educational attitudes--"progressivism" and "traditionalism" (Kerlinger, 1967). These three variables were more or less independent of other variables and made so small a contribution that they were dropped.

At this point the investigator dropped 17 more alternatives and added three instrument-variables: the number of times the

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[1]James W. Willis kindly made available the data on the Arkansas sample, May, 1970.

TABLE 1

Problems Used in Inventory

	Nature of Problem	Level
A.	Attack on value of subject (G)	HS
B.	Resistance to assignment; insult to teacher (I, G)	JrHS
C.	Teacher's plan vs. inquiry suggested by students (G)	HS
D.	Class confession of baiting a substitute teacher (G)	Elem.
E.	Petition in homeroom to dismiss a gym teacher (G)	HS
F.	Bright underachiever deprecating value of study (I, G)	HS
G.	Difficulties of a pupil in recitation (I)	Elem.
H.	Individual misconduct; disruption of order (I, G)	HS
I.	Pupil wearing outer garments in class (I)	Elem.
J.	Out-of-class bullying (I)	Elem.

Note. (I), individual problem; (G), group problem; (I, G), individual, but important effect on group.

respondent chose the middle rating and two measures of extremeness in rating. The first measure of extremeness was the mean of positive deviations from the midpoint of 3; the second, the mean of negative deviations from the midpoint.

The final series of factor-analyses was then done on this reduced total of 60 variables. The first stage used a computing program built around the Promax routine that included principal-components analysis, varimax rotation, and oblique rotation ending with correlations among the oblique factors (Hendrickson & White, 1955). The next stage was a second-order factor analysis of the correlations among the oblique factors. The second-order solution was orthogonal using the varimax criteria. In the first stage the cut-off was set at five factors and in the second, at three.

Results

First-order factor analysis

For the purposes at hand the first-order orthogonal solution will serve. In general, it led to much the same interpretations as the first-order oblique solution and also yielded routinely the sums of squares of loadings and the communalities.

Table 2 gives the loadings on the first five factors for sample 1. The interpretation of these follows.

1. Inconsiderateness vs. considerateness. This was a bi-polar factor with the strongest loadings on actions suggesting inconsiderateness, an avoidance of certain problems, and punitive intolerance. Positive loadings carried a strong theme of denial and avoidance of the problem; the relatively few negative loadings

TABLE 2

Rotated Factor Loadings and Communalities for Sample 1

Item	Abridged Statement	I	II	III	IV	V	Comm.
A-1	Ignore	61	-17	-09	-06	03	41
A-2	Caution the two students	-11	28	37	09	-04	24
A-3	Appoint a committee	-49	29	-16	29	-05	43
A-4	Show value of algebra	-64	34	02	26	-01	59
A-5	Discuss with class	-58	16	17	20	09	44
A-6	Have them see counselor	62	25	04	-18	21	53
A-7	Give punishment	79	-18	00	02	16	68
A-8	Remind math is required	59	-18	22	-03	17	45
B-9	Have private talk; advise	-44	34	34	20	00	47
B-10	Give credit; let be	46	-30	00	12	-04	32
B-11	Class discuss and evaluate	79	00	-12	-13	19	69
B-12	Send to principal's office	64	15	07	-11	21	50
B-13	Let tell how he feels	-43	30	39	18	-09	47
B-14	Refer to counselor	41	17	-21	-10	50	50
C-15	Give immediate approval	22	20	11	-34	-01	22
C-16	Open to class discussion	-63	35	14	15	-02	56
C-17	Give pro's and con's	-06	-04	40	-08	-06	17
C-18	Invite speakers	-07	54	10	-02	-07	31
C-19	Keep out; go on with unit	50	-38	08	-04	26	47
D-20	Give a "talking to"	51	16	21	04	30	41
D-21	Let pupils discuss	-32	27	-01	29	10	27
D-22	Turn over to principal	70	03	08	-25	07	57
D-23	Make clear expect better	-66	33	22	13	-05	62
E-24	Ask to submit reasons	02	56	02	14	01	34
E-25	Have committee talk with	-15	53	-12	28	03	40
E-26	Discuss with class	-06	20	37	48	-14	42
E-27	Ignore	41	-48	-09	-09	22	46
E-28	Suggest see the principal	-10	60	09	01	-04	38
F-29	Ask counselor assume	03	30	25	-02	02	16
F-30	Inform him	14	04	46	-13	-12	27
F-31	Explain attitude unwise	-10	18	56	34	14	49
F-32	Find interest; encourage	-39	43	-14	34	-10	49
F-33	Invite to tell feelings	-38	30	03	50	-03	49
F-34	Plan program; urge adopt	-21	33	21	23	19	28
G-35	Explain; show jingle	-34	47	27	29	-21	54
G-36	Caution pupil	50	-43	13	-20	38	63
G-37	Refer to psychologist	41	-20	-05	-13	58	57
G-38	Make effort to praise	-41	34	05	34	-07	41
G-39	Call in for talk; advise	-20	21	49	18	-07	36
G-40	Refer problem to parents	51	-36	04	-20	43	61

TABLE 2, continued

Item	Abridged Statement	I	II	III	IV	V	Comm.
H-41	Give pupil responsibility	-20	34	-12	44	-29	44
H-42	Ask him to leave class	15	-22	32	-28	40	41
H-43	Have him see counselor	-10	31	00	-01	43	29
H-44	Have a talk; explain	-21	34	40	35	18	47
H-45	Have him tell how feels	-30	17	12	59	20	52
H-46	Keep after school	21	-19	52	-09	40	51
I-47	Draw out class on reasons	-18	50	13	15	01	32
I-48	Refer to psychologist	25	-08	-21	-03	63	52
I-49	Let pupil sit	21	-46	-08	-14	30	38
I-50	Give gentle scolding	10	-19	37	-06	32	29
I-51	Refer problem to parents	23	04	20	-12	58	44
J-52	Point out not right	01	00	72	11	-03	53
J-53	Let situation take care	40	-22	01	-13	26	29
J-54	Hold class discussion	-21	36	01	50	03	43
J-55	Give extra duties	-01	20	-01	39	-14	21
J-56	Refer to psychologist	00	-12	-12	08	66	47
J-57	Advise no one will play	10	12	62	09	02	41
58	Number of ratings of "3"	04	03	-19	-74	13	59
59	Extremeness--high end	-01	06	07	75	-01	58
60	Extremeness--low end	19	05	01	-55	33	45
Sums of squares of loadings and of communalities		8.80	5.27	3.82	4.56	3.74	26.19
Percent of total variance		14.7	8.8	6.4	7.6	6.2	43.6
Size of loading needed for significance at .01 level[a]		.23	.23	.23	.24	.24	

Note.--Decimal points omitted for the individual loadings and communalities.

[a]After Burt and Banks (1947)

came out on actions of discussion and on special efforts or concessions for students. The important loadings were concentrated on five problems, A, B, C, D, and G--mainly where the press was a threat to order and to the authority of teacher or subject.

2. Communicating and getting persons properly informed. This, too, was a bipolar factor but weakly so. Important loadings occurred on only four problems--C, E, G, and I. Evidently these were seen as problems in which the critical requirement was the need for informing persons properly. Actions involving group discussion were noticeably absent. Negative loadings implied evasiveness.

3. Persuasion or "reasoning with" others. Loadings greater than .35 were scattered over nine problems but the concentration was on F, G, H, and J--problems mainly of individual misbehavior. The underlying themes were those of interpreting behavior to the person and of urging certain courses of action to overcome the problem.

4. Willingness to hear the student's side and to take a stand. This factor was a composite where the highest two loadings (of opposite sign) were on instrument-variables: number of ratings of 3--implying a tendency to avoid making high or low ratings, and mean extremeness toward the high end--implying a tendency to make favorable ratings. Willingness to hear the student's side of an issue, to discuss openly with an individual or group, went along with the willingness to commit oneself in rating alternatives. The negative loading for mean extremeness toward the low end should be interpreted as a positive correlation

with this factor because this variable had been scored -1 and -2 (i.e., 3 subtracted from each rating of 2 or 1). Important loadings occurred on problems E, F, H, and J.

5. Referral to specialists. This factor was limited to problems B, G, H, I, and J, which dealt with individual behavior and where referral to a counselor or psychologist was regarded as good. Certain smaller loadings in G, H, and I gave a hint of passing on or avoiding responsibility.

Table 3 gives the loadings on the first five factors for sample 2. Interpretation of them follows.

1. Inconsiderateness vs. considerateness. As for the first sample, this also was a bipolar factor though broader in that important loadings came on all ten problems.

2. Informing, explaining, and influencing by telling. This was a fairly broad factor having at least one loading of .44 or larger on eight of the problems. It carried the theme of solving problems by advising and giving information, and so resembled one of the main dimensions of Sorenson et al. (1963).

3. Referral to specialists. This was a factor like the last one in the previous sample but a little broader.

4. Willingness to make extra efforts and to take a stand. Here again was a narrow composite more strongly loaded by two response-bias variables. The favoring of such extra efforts in behalf of the student, or seemingly round-about solutions, was much less true of respondents who recorded the larger numbers of middle ratings.

TABLE 3

Rotated Factor Loadings and Communalities for Sample 2

Item	Abridged Statement	I	II	III	IV	V	Comm.
A-1	Ignore	51	08	-03	-15	32	39
A-2	Caution the two students	09	57	11	06	-21	39
A-3	Appoint a committee	-64	-03	08	07	-07	42
A-4	Show value of algebra	-52	24	04	08	-04	33
A-5	Discuss with class	-17	-17	04	29	12	16
A-6	Have them see counselor	56	07	25	-02	-12	39
A-7	Give punishment	79	07	-01	-04	01	64
A-8	Remind math is required	59	18	04	00	-01	39
B-9	Have private talk; advise	25	44	21	-17	-46	54
B-10	Give credit; let be	-01	-13	14	06	66	48
B-11	Class discuss and evaluate	69	-06	04	-04	02	48
B-12	Send to principal's office	71	21	09	-13	-04	58
B-13	Let tell how he feels	00	01	21	33	-55	46
B-14	Refer to counselor	49	01	42	06	-20	46
C-15	Give immediate approval	09	-01	02	03	56	32
C-16	Open to class discussion	-59	-07	09	33	04	48
C-17	Give pro's and con's	13	60	02	-10	02	39
C-18	Invite speakers	-02	14	26	30	16	20
C-19	Keep out; go on with unit	59	21	-11	-14	05	42
D-20	Give a "talking to"	55	39	11	-17	04	49
D-21	Let pupils discuss	-51	-14	18	27	-30	48
D-22	Turn over to principal	68	12	18	-19	01	55
D-23	Make clear expect better	-24	44	05	-05	-20	30
E-24	Ask to submit reasons	-06	-18	26	32	12	22
E-25	Have committee talk with	-40	-16	45	19	03	43
E-26	Discuss with class	-37	09	-07	35	00	27
E-27	Ignore	47	15	-09	-07	50	50
E-28	Suggest see the principal	-35	-08	40	05	-16	32
F-29	Ask counselor assume	-22	18	55	-17	-13	43
F-30	Inform him	17	53	-02	02	32	41
F-31	Explain attitude unwise	00	60	-17	02	06	40
F-32	Find interest; encourage	-42	-02	02	49	-06	41
F-33	Invite to tell feelings	-44	05	22	44	-24	49
F-34	Plan program; urge adopt	-06	64	32	-10	01	53
G-35	Explain; show jingle	-43	37	08	04	-02	32
G-36	Caution pupil	74	-08	-08	09	13	59
G-37	Refer to psychologist	43	00	57	19	22	59
G-38	Make effort to praise	-57	17	24	15	-26	50
G-39	Call in for talk; advise	14	47	12	41	-08	43
G-40	Refer problem to parents	79	-05	09	-13	23	71

TABLE 3, continued

Item	Abridged Statement	I	II	III	IV	V	Comm.
H-41	Give pupil responsibility	-53	-03	22	30	-22	47
H-42	Ask him to leave class	58	15	12	-33	10	49
H-43	Have him see counselor	-07	04	66	00	04	45
H-44	Have a talk; explain	-13	55	29	08	-21	46
H-45	Have him tell how feels	-40	11	09	50	-06	44
H-46	Keep after school	64	25	08	-22	-15	55
I-47	Draw out class on reasons	-32	11	-05	28	-38	35
I-48	Refer to psychologist	37	-01	59	08	20	53
I-49	Let pupil sit	08	-23	18	12	50	36
I-50	Give gentle scolding	46	22	21	-37	-18	48
I-51	Refer problem to parents	50	08	33	-18	05	39
J-52	Point out not right	21	53	-09	04	-07	34
J-53	Let situation take care	34	20	09	-17	12	21
J-54	Hold class discussion	-46	-02	23	31	-22	41
J-55	Give extra duties	-09	-01	09	59	00	37
J-56	Refer to psychologist	24	13	65	06	-04	50
J-57	Advise no one will play	16	57	-08	12	00	37
58	Number of ratings of "3"	16	-12	03	-72	05	56
59	Extremeness--high end	-05	05	-08	75	-03	57
60	Extremeness--low end	39	06	33	-43	04	46
Sums of squares of loadings and of communalities		10.91	4.33	3.65	4.18	3.01	26.08
Percent of total variance		18.2	7.2	6.1	7.0	5.0	43.5
Size of loading needed for significance at .01 level[a]		.24	.24	.25	.25	.25	

Note.--Decimal points omitted for the individual loadings and communalities.

[a]After Burt and Banks (1947).

5. Laissez faire or permissiveness. A policy of noninterference with the normal inclinations of person or group seemed to be the common thread in this small factor. One could say that the rationale was to let the situation take care of itself; or, less generously, to follow the line of least resistance. The important loadings were confined to problems B, C, E, and I, where the behaviors could be viewed as not highly disruptive or threatening.

Table 4 gives the loadings on th. first five factors for sample 3. Interpretation was as follows.

1. Inconsiderateness; disciplinary attitude. Again the first factor was a broad one, though with loadings concentrated on actions implying avoidance of the problem, indifference, punitiveness, and authoritarianism. The other end of the continuum was not well represented as such courses of action split off to other factors.

2. Traditional helpfulness. Here the underlying belief was the efficacy of explaining, telling, showing, giving responsibility, praising, etc., as teachers have long done as a matter of course. This fairly broad factor implied involvement with pupils rather than aloofness but the relationship was largely one-way and excluded group discussion or problem-solving.

3. Referral to specialists. A factor similar to that found in the other samples except for some meanings conveyed by the instrument-variables. Thus respondents who chose referral were more likely than others to use the neutral point on the rating scale and much less inclined to rate actions unfavorably. In

TABLE 4

Rotated Factor Loadings and Communalities for Sample 3

Item	Abridged Statement	I	II	III	IV	V	Comm.
A-1	Ignore	68	-20	03	06	-03	50
A-2	Caution the two students	31	03	21	33	25	31
A-3	Appoint a committee	-50	03	03	07	47	48
A-4	Show value of algebra	-44	21	05	-01	60	60
A-5	Discuss with class	-28	25	-14	-27	50	48
A-6	Have them see counselor	75	08	-21	-09	-14	65
A-7	Give punishment	85	05	12	-01	-16	76
A-8	Remind math is required	66	-17	-09	22	06	52
B-9	Have private talk; advise	11	47	-01	-09	-01	24
B-10	Give credit; let be	15	-13	04	31	33	24
B-11	Class discuss and evaluate	75	-12	-08	08	-07	59
B-12	Send to principal's office	76	-15	-17	-08	-10	65
B-13	Let tell how he feels	-17	43	-24	-12	41	45
B-14	Refer to counselor	63	-12	-42	06	04	60
C-15	Give immediate approval	09	-23	19	34	55	52
C-16	Open to class discussion	-61	21	15	-07	29	54
C-17	Give pro's and con's	01	57	10	33	-08	44
C-18	Invite speakers	-25	-04	-07	04	51	33
C-19	Keep out; go on with unit	69	04	-14	13	-16	55
D-20	Give a "talking to"	44	26	-06	01	-08	27
D-21	Let pupils discuss	-18	17	-11	07	62	46
D-22	Turn over to principal	71	03	-35	-11	-01	64
D-23	Make clear expect better	-29	58	04	37	14	57
E-24	Ask to submit reasons	01	07	06	-21	74	59
E-25	Have committee talk with	-03	08	09	09	66	46
E-26	Discuss with class	00	12	-01	26	51	34
E-27	Ignore	68	-15	-04	13	-10	51
E-28	Suggest see the principal	03	44	15	-05	29	31
F-29	Ask counselor assume	26	54	-45	-17	05	59
F-30	Inform him	07	-05	-06	49	05	26
F-31	Explain attitude unwise	09	12	04	60	-05	39
F-32	Find interest; encourage	-52	47	03	31	14	61
F-33	Invite to tell feelings	-13	39	11	25	15	26
F-34	Plan program; urge adopt	-07	53	-09	00	-08	30
G-35	Explain; show jingle	-35	40	10	21	18	38
G-36	Caution pupil	71	-45	03	09	00	71
G-37	Refer to psychologist	64	-17	-46	-06	-09	66
G-38	Make effort to praise	-33	63	12	11	23	58
G-39	Call in for talk; advise	-04	26	-15	37	23	28
G-40	Refer problem to parents	67	-24	-24	-14	-05	59

TABLE 4, continued

Item	Abridged Statement	I	II	III	IV	V	Comm.
H-41	Give pupil responsibility	-26	63	15	-02	21	54
H-42	Ask him to leave class	62	-19	-25	24	01	54
H-43	Have him see counselor	13	-06	-63	47	04	65
H-44	Have a talk; explain	-17	11	-16	48	23	35
H-45	Have him tell how feels	-17	44	07	21	28	35
H-46	Keep after school	44	05	-36	25	-16	41
I-47	Draw out class on reasons	-15	53	14	-07	42	50
I-48	Refer to psychologist	24	-09	-71	08	03	58
I-49	Let pupil sit	10	-21	-08	01	06	06
I-50	Give gentle scolding	38	-20	-36	03	-15	34
I-51	Refer problem to parents	46	-19	-61	03	16	64
J-52	Point out not right	07	18	-05	68	05	51
J-53	Let situation take care	45	-17	-46	29	-08	53
J-54	Hold class discussion	-22	29	19	16	40	36
J-55	Give extra duties	-20	50	20	19	04	36
J-56	Refer to psychologist	13	05	-78	-08	03	63
J-57	Advise no one will play	10	04	-01	70	-08	51
58	Number of ratings of "3"	09	-33	-47	-21	-30	47
59	Extremeness--high end	20	41	41	03	30	46
60	Extremeness--low end	35	-14	-68	11	-06	61
Sums of squares of loadings and of communalities		10.25	5.35	4.63	3.72	4.66	28.61
Percent of total variance		17.1	8.9	7.7	6.2	7.8	47.7
Size of loading needed for significance at .01 level[a]		.29	.29	.30	.30	.30	

Note.--Decimal points omitted for the individual loadings and communalities.

[a]After Burt and Banks (1947).

other words, their responses showed a caution or guardedness, which is consistent with referral.

4. Persuasion or "reasoning with" others. A narrow factor concentrated on F, H, and J where individual disruptive behavior was the problem.

5. Communicating and working with the class on its concerns. This factor picked up another aspect of considerateness--namely, the teacher's responsiveness to concerns of a small group or of the entire class and willingness to work with them on these matters. The important loadings were almost entirely on the group-centered problems--A, C, D, and E.

What may be said of the predictions in view of these results? With respect to the first, the emergence of a broad bipolar factor of inconsiderateness-considerateness, the hypothesis was confirmed only in part, there being some important qualifications. While the fundamental issue of consideration vs. denial or avoidance did command priority over all others, the pole of considerateness did not emerge as strongly as the opposite pole. Actions showing constructive involvement largely split off into more or less independent clusters. Also, the main factor accounted for only about 15 to 18% of the total variance.

As to the second prediction, numerous small factors did indeed emerge and they were generally different from those set forth in the earlier studies cited. Exceptions were the emergence in all three samples of a dimension of referral like but not as broad as that of Sorenson et al. (1963); of a dimension of advice-information giving in sample 2, again like that of

Sorenson et al.; and of a laissez-faire attitude in sample 2, as postulated by Dressel and Mayhew (1954).

With respect to the third prediction, the emergence of somewhat different patterns of factors, the evidence was also mixed. The main factor showed a substantial core of agreement in the loadings across the three samples, though it varied somewhat in scope and emphasis from one sample to the next. There was also good agreement on two of the remaining factors, referral and belief in the power of persuasion. The remaining two factors agreed across the samples on the general theme of responsible action (meeting the problem in some way) but not on specific definitions of factors. It may seem that the investigator has stretched the idea of general agreement to include a dimension like laissez faire but, in the context of the problems on which it had emerged, such actions may be interpreted as responsible and constructive.

Effects of background and curriculum seem especially likely in some of the differences between samples 2 and 3. These samples consisted of prospective teachers of senior standing or above, sample 2 having studied educational psychology and sample 3 not. It seems plausible that the study of educational psychology had brought about a more comprehensive main dimension that has integrated into considerateness the use of group discussion and has produced a broader secondary factor of advice-information giving. The appearance of a laissez-faire attitude in sample 2 may be seen as either a failing or an accomplishment of such study--a failing in that such actions should really cluster with those at

the pole of considerateness, for on the problems where it had loaded noninterference could be regarded as the judicious application of principles of reinforcement or nonreinforcement (e.g., "natural consequences"); and an accomplishment in that some students at least had shown consistent choice of such psychologically sophisticated options. Sample 3, for its part, seemed to show a pattern of factors rather more traditional than the above. It must be recognized, of course, that cultural differences associated with region might well account for the differences in patterns.

Second-order factor analysis

Though the first-order orthogonal and oblique solutions led to essentially the same conclusions about factors, nonetheless the correlations among the oblique factors brought out some further important relations as shown in Table 5.

In all three samples the main factor emerged as a stronger and definitely bipolar dimension through the inclusion of one or two clusters at the Considerate pole. This result further supports the premise that, at least within problematic situations, certain judgments are logically contradictory and must correlate inversely to some statistically significant degree. Sample 1 had the cleanest solution of the three, and the main second-order factor brought out the bipolar dimension of Inconsiderateness vs. Considerateness very well. This factor could well be named Aloofness, Indifference, and Impersonal Relations vs. Helpfulness. In sample 2 the Inconsiderate end of the bipolar dimension dominated, being bolstered by a component of expediency or

TABLE 5

Correlations among First-Order Oblique Factors and Matrices for Second-Order Analysis

Sample 1

Correlations

	2	3	4	5
1	-53	03	-52	31
2		15	48	-10
3			-02	24
4				-18

Matrix for Second-order Principal Components

	1	2	3	Comm.
1	85	02	02	72
2	-77	34	07	72
3	03	84	-52	97
4	-79	08	27	71
5	43	65	60	97
S	2.13	1.25	0.71	4.09

Matrix for Second-order Varimax Factors

	1	2	3	Comm.
1	79	01	31	72
2	-82	21	-00	72
3	-03	98	12	97
4	-83	-12	-02	71
5	12	13	97	97
S	2.00	1.03	1.06	4.09

Sample 2

Correlations

	2	3	4	5
1	23	-07	-48	26
2		07	-16	-21
3			20	-26
4				-10

Matrix for Second-order Principal Components

	1	2	3	Comm.
1	80	22	34	81
2	24	77	-25	71
3	-44	50	73	97
4	-77	-20	08	65
5	48	-64	36	77
S	1.73	1.33	0.84	3.90

Matrix for Second-order Varimax Factors

	1	2	3	Comm.
1	89	-09	09	81
2	39	74	03	71
3	-08	13	97	97
4	-75	-10	26	65
5	34	-79	-15	77
S	1.64	1.22	1.04	3.90

Sample 3

Correlations

	2	3	4	5
1	-34	38	10	-27
2		-23	04	31
3			-05	-18
4				27

Matrix for Second-order Principal Components

	1	2	3	Comm.
1	73	39	02	68
2	-69	-05	48	71
3	64	22	66	89
4	-19	87	-27	87
5	-66	45	24	69
S	1.88	1.17	0.80	3.84

Matrix for Second-order Varimax Factors

	1	2	3	Comm
1	52	22	60	68
2	-83	-05	-11	71
3	04	-11	94	89
4	-01	93	-00	87
5	-67	48	-09	69
S	1.42	1.16	1.26	3.84

Note.--Decimal points omitted within matrices. S is sum of squares.

avoidance from primary factors 2 and 5. In sample 3, by contrast, the Considerate end of the main bipolar prevailed.

The second important result was that the second-order analysis kept two of the primary factors in much the same form except for some additional loading on one of the other primary factor vectors. Referral came through cleanly in samples 1 and 2 but broadened in sample 3 to include other kinds of referral than to counselors--namely, to persons such as school principals and parents. There it took on overtones of avoidance or even of a disciplinary attitude. The primary factor, power of persuasion or "reasoning with," came through rather cleanly in samples 1 and 3. In sample 2, however, the similar but broader primary factor of advice-information giving became bipolar, with laissez-faire loading at the opposite pole. This bipolarity suggests that those who favored the giving of advice or information in certain of the situations tended to reject noninterference as inaction or evasion.

Discussion

Once again it appears that the utility of logical and psychological analysis has been demonstrated, in this instance for suggesting the general nature of the dimensions to be expected and for guiding the design of measuring instruments. Judgments of alternative courses of action in response to problems in human relations will tend to cluster, not by the literal content of the actions, but by their functional likenesses within and across problems. In particular, actions of a given kind such as referral, ignoring, and group discussion, may generally not be expected to

cluster into inclusive, homogeneous classes. This study confirms that a priori classifications which rest on a premise of equivalence based upon manifest content are unlikely to stand up empirically.

The advantage and logic of a second-order factor analysis has also been demonstrated here. Second-order analysis served to confirm the emergence of a relatively strong main bipolar factor predicted on two grounds--first, that the issue of meeting the problem as against evading or suppressing it takes priority over other grounds for judging alternatives; and second, that at least a few alternatives within a problem are logically inconsistent and so cannot both be equally regarded. The first ground serves to predict the scope and size of the main factor; the second, its bipolarity.

Even so, the main factor was not so broad as to embrace all other primary factors. A single dimension of Inconsiderateness-Considerateness would still be too restricted a construct to account for most of the intercorrelation among the responses. In this respect the findings agree with the conclusion that a similar dimension, the widely used authoritarian-democratic, is an oversimplified construct when applied to style of teaching and student behavior (Anderson, 1959; Costin, 1971).

The scope and size of such a principal factor will depend, of course, upon the actions sampled and upon the nature of the problems; and so it was here. Two or more actions of a like kind in a problem will multiply the number of such factor loadings as well as increase the reliability of the scores on the factor.

This condition held for a few of the problems used in this study but was not regarded as a serious distortion. As for the other condition, particular kinds of problems will bring out the main variable of Inconsiderateness-Considerateness rather strongly. Generally such problems are serious challenges to the authority of the teacher or to the order, or they are annoyances that invite an expedient response. One could sample such problems so heavily as to increase the prominence of the main factor. The only sound recourse is to defend a broad definition of the universe of problems and thereby accept both the strong probability of multiple factors emerging and of factors interacting with problems--as borne out by the patterns of factor loadings in this study. In any event, the truism still holds that what one gets out of a factor analysis depends much upon what one puts in.

What one gets out of a factor analysis will also depend upon the populations sampled. Again, this reasonable hypothesis was borne out here, the similarities among the factor patterns notwithstanding. It would seem arbitrary and unrealistic to lay down one set of dimensions in advance for use with groups outwardly similar, or to assume invariance of factor patterns across populations. On the contrary, better to assume that the nature of the dimensions and their interrelations will depend to some extent upon the background of the groups, their recent experiences, and the context in which the data have been gathered. The kind of instrument developed in this study has demonstrated its sensitivity, with the help of factor analysis, for detecting subtle differences in attitudes among roughly similar populations.

Considering the rather wide availability of digital computers, it would seem reasonable to ascertain directly the main variables operating in a given population.

The results suggest that some four or five first-order factors are enough to extract from this kind of data. Beyond that, the factors are small and of narrow import. In addition to some kind of broad factor of inconsiderateness-consideratenes, the two smaller factors of referral to specialists and belief in persuasion seem likely to appear in most if not all populations. Moreover, an increase in the number of problems, say, to as many as 20, may be expected to make the main bipolar factor and its components in a second-order factor analysis still more prominent. The explanation for this is like one offered by Kerlinger (1967), based upon Cronbach's demonstration of the cumulative effect of many small positive loadings upon correlations among item clusters and among the factors (Cronbach, 1951). In the further development of this method of measurement, a sound premise is that emphasis be on the main second-order bipolar dimension, with some attention to the next two second-order factors. Evidence from other studies in the domain of personality supports the choice of a few broad second-order factors because these are the most dependable as well as relatively simple, familiar dimensions (Peterson, 1965).

It is noteworthy that the main dimension here is like one found in a long series of studies of supervisory leadership and measured by the Leadership Opinion Questionnaire (Fleishman, 1969). The dimension there is called Consideration. Recent

studies of the Minnesota Teacher Attitude Inventory (MTAI), for instance the analysis by Yee and Fruchter (1971), offer a few parallels. Their Factor II, Conflict between Teachers' and Pupils' Interests, and Factor III, Rigidity and Severity in Handling Pupils, resemble factors or poles of bipolar factors in this study. A close comparison does not seem fruitful because of the focus of the MTAI on child behavior and a "traditional" outlook for which subject matter, moral standards, and discipline are the main referents. Three-fourths of the 150 items on the MTAI also express negative evaluative beliefs (Yee & Fruchter, 1971).

Further research with the kind of instrument used in this study seems called for. The technique is open to the same criticism that Barton (1962) made of the PIHR--namely, that it did not separate the judgment about an action (tactic) from the values sought. Whether or not this separation would be an improvement is a moot question. Another question has to do with the transparency and usefulness of this situational technique as compared to the more conventional inventory of beliefs. The comparative advantages of these two kinds of technique are not yet known in detail. For instance, would an inventory of beliefs having many subtle kinds of statements be less transparent than a situational form? A final inquiry is to study changes in these evaluative attitudes and their organization as they relate to particular kinds of education and job experiences. The kind of technique developed in this investigation appears to have enough promise to serve well in such inquiries.

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Appendix A

Questionnaire on Teacher Practices

The questionnaire on the following pages is an abridged version of the form used in gathering data. It includes only the alternatives from the original that became part of the final analysis of data. This final set has been renumbered but the original number appears at the end of each alternative.

The questionnaire should be viewed as a tentative form built originally for research on attitudes and values. While it can be used informally for self-evaluation and instruction with prospective teachers, this form should not be used for decisions about the selection or retention of students or teachers. The questionnaire should be used only for research or for the informal purposes stated above and then only with permission of the investigator.

The author hereby acknowledges a debt to the following sources of incidents which he took the liberty to adapt:

Association for Supervision and Curriculum Development, Toward Better Teaching. Washington, D.C.: National Education Association, 1949. Situation C adapted from pp. 190-191.

B. P. Brodinsky, Casebook on Classroom Teaching. New London, Ct.: Arthur C. Croft Publications, 1955. Situations A and E adapted from pp. 36 and 40-41, respectively.

Rudolf Dreikurs, Psychology in the Classroom. New York: Harper & Row, 1957. Situations B and I adapted from pp. 84-85 and 82-83, respectively.

Alice Miel, Cooperative Procedures in Learning. New York: Bureau of Publications, Teachers College, Columbia University, 1952. Situation D adapted from pp. 72-73.

A. Garth Sorenson and Constance Yu, Teacher Practices Questionnaire, Form 2--June, 1962. Document No. 7707, ADI Auxiliary Publications Project, Photoduplication Service, Library of Congress, Washington, D.C. 20540. Situations F, G, H, and J adapted from Problems VIII, X, VII, and XXVII, respectively.

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QUESTIONNAIRE ON TEACHER PRACTICES

(Abridged)

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Questionnaire on Teacher Practices
(Abridged)
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Directions

This booklet contains ten problematic situations of a kind sometimes faced in the classroom. These situations are lettered from A through J. Following each situation there is a list of 12 to 18 possible courses of action that a teacher might take. To conform to the numbering on the answer sheet the alternative courses of action are numbered consecutively from 1 to 150.

Study each situation. Then rate each alternative course of action on a 5-point scale according to its appropriateness. Try to consider each alternative on its own merits, independently of the others in the list. Use the following code to record your ratings on the answer sheet:

(HIGH END: "GOOD")

5 - Very appropriate

4 - Fairly appropriate

3 - So-so; possibly acceptable

2 - Fairly inappropriate

1 - Very inappropriate

(LOW END: "POOR")

Thus, if you feel that a certain action is very appropriate, blacken answer space 5 opposite the corresponding item number on the answer sheet. If you feel that the action is fairly appropriate, then blacken answer space 4; and so on for the other possible ratings.

The spaces for answers run from left to right (1-2-3-4-5). Be careful to use the scale properly: remember that 5 is the high end, standing for a very appropriate or good action, and 1 is the low end, standing for a very inappropriate or poor action.

Use a no. 2 pencil, either your own or one provided by the person in charge. Do not use a pen or an electrographic pencil such as the IBM kind.

Please do not make any marks on this booklet.

Situation A

Tim was a popular tenth-grade student who often set the tone and style for other students to follow. Mathematics was one subject he especially disliked (it was a required subject in the main course of study). Near the end of one class period in mathematics, he throws this question at you, the teacher: "Why do we have to study that stuff?"

Other students take up the query. Soon, in their private conversations, the whold class is using that question as their theme song before and after class sessions. Affairs reach a critical point when another student, daughter of a prominent business man, says quite loudly and pointedly: "My father doesn't see any sense in algebra either."

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

1. Ignore the incident; go on with the lesson. (3)

2. Caution the two students that they will get more out of the course and benefit their future by making an effort to like algebra. (5)

3. Appoint a special student committee to investigate the uses of algebra in science and other areas, and have the committee report its findings to the class. (6)

4. Go through some everyday problems to show the value of algebra. (8)

5. Discuss with the class why they don't feel algebra is necessary, and what they think about the course. (9)

6. Arrange for the two outspoken students to see the school counselor. (13)

7. Give the student an extra assignment or some other form of punishment for disrupting the class. (15)

8. Remind the class that mathematics is a required subject and that there is little point in making an issue of it. (16)

Situation B

A junior high school student had refused to prepare a written contribution requested by you, his English teacher, for that day's assignment. Consequently, you tell him to have the paper the next day, or not come to class. The next day, when he is asked to read his contribution, he has one, which he then reads to the class. The topic of his paper is a disagreement between a student and a teacher in which conversation the student referred to the teacher as "an old heifer." It is quite obvious that the student is referring to you, the teacher of this English class. Upon reading the contribution, he starts to leave the class.

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

9. Call the student in for a private conference; then advise him on the importance of meeting assignments and showing proper respect. (17)

10. Have student return to seat; give credit for the assignment; don't do anything further about the incident. (19)

11. Let the student leave; then have the class discuss and evaluate his paper. (25)

12. Send him to the principal's office for disciplinary action of some sort. (26)

13. Ask him to come in and talk things over; then give him a chance to tell how he feels about the assignment and your class. (29)

14. Refer the boy to the school counselor or psychologist. (33)

Situation C

You are teaching social studies to a group of tenth-grade students. The class is in the midst of a certain unit which has been carefully planned and for which definite reading assignments have been made.

In this community, the City Council was deciding whether to adopt daylight saving time and the issue was being debated in the community. The radio, whenever it was turned on, blared forth spot announcements and 15-minute speeches on either side of the question. A group of tenth-grade students was also debating the question between periods as they gathered in thir classrooms. In your class, before the bell rang, several students turn to you and ask, "How can the City Council tell what the people really want? They don't know who hires the different speakers or which ones represent most of the people. How could they tell?" One of the students then suggests that the council needs a survey of community opinion and asks, "Couldn't we make a survey like that?"

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

15. Give your immediate approval; allow the class to plan and make the survey. (37)

16. Open the matter of a survey to class discussion, getting the class to consider what would be involved in making one. (38)

17. Take a few minutes at the start of the period to give the pro's and con's on the issue; then go on with the regular class work. (39)

18. Take responsiblity for inviting speakers to class who represent both sides of the controversy. (43)

19. Keep the class out of the controversy; go on with the present unit as planned. (46)

Situation D

You have been out of school one day and on your return asked a few questions about the work covered the day before so that you would know where to pick up. Volunteers tell you what had been done in reading, arithmetic, and so on, and you proceed to begin the day.

Suddenly someone addresses you and says, "....We had a little trouble yesterday." At that snickers start, grins appear, and all of a sudden several begin to tell you of the "fun" they had had. It is quite evident that the poor substitute had put in a trying day.

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

20. Ask the few who seemed to be ringleaders to see you after school; then give them a "talking to". (49)

21. Let the pupils discuss their behavior and how they should act in the future. (58)

22. Listen to the comments but turn the problem over to the principal. (59)

23. Make it clear to the class that you expect better behavior of them on future occasions. (60)

Situation E

Students in one homeroom were busy getting signatures on a petition to dismiss a gym instructor. They hadn't even asked you, their homeroom teacher, for advice. They had decided among themselves that the gym instructor was overly strict. They had even worked actively for signatures between classes, and were planning to get more. Feeling was running strong.

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

24. Ask the students to submit in writing their reasons, and to cite specific incidents. (63)

25. Have the students appoint a committee to talk with the gym instructor about their grievances. (65)

26. Discuss with the class the possible consequences of their getting up a petition. (67)

27. Pay no attention to the signature-getting; ignore it. (68)

28. Suggest that a committee of the students see the principal to present their views. (70)

Situation F

Elmer, whose scholastic aptitude score places him in the top 1 percent of his high school class, enrolls in as many "snap" courses as possible. He earns B's and C's with little effort. He tells his schoolmates, "Get wise. Don't knock yourself out with homework. The school will have to graduate you anyway when you are of age."

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

29. Ask the guidance counselor to assume responsibility for this problem. (76)

30. Inform him that the school does not have to graduate a student and that a student may quit when of age. (77)

31. Explain to him that his attitude is really not very wise; that it is a rationalization for lack of effort. (85)

32. Find some special interest that Elmer has; then encourage him to cultivate it through outside reading, etc. (88)

33. Invite him to tell you about his way of looking at school and his feelings about it. (89)

34. Plan a more appropriate program for him, and urge him to adopt it. (90)

Situation G

In fourth-grade spelling class, Linda volunteers to spell "Arkansas" but is mistaken. You correct her, and she becomes sullen. Later you call on her to spell "acrobat". Again she is mistaken, and you correct her. She then gives the impression of feeling "picked on" and of wanting to be left alone.

5 - Very appropriate
4 - Fairly Appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

35. Explain to her that these two words are easy to misspell; then show some easy way -- like a jingle -- to remember the spelling. (92)

36. Caution Linda that you will request a conference with her parents if she does not improve her behavior. (93)

37. Refer the problem to a school psychologist. (95)

38. Make a special effort to praise her whenever this seems appropriate. (98)

39. Call Linda in for a talk and then explain that you weren't picking on her but only trying to help by correcting errors. (103)

40. Contact Linda's and leave the problem up to them. (105)

Situation H

When Kevin, an eleventh grade student, is not chatting with his neighbors in class, he is passing notes. He often interrupts the lecture or discussion to offer his point of view. Or he has to get a book, sharpen a pencil, etc. His work is unsatisfactory.

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

41. Give him some form of responsibility such as taking attendance, leading an occasional discussion, and the like. (109)

42. Ask him to leave the class and not return until he is ready to do his work and conduct himself in the proper manner. (111)

43. Arrange for the guidance counselor to have a talk with Kevin. (112)

44. Have a talk with Kevin in which you explain what his behavior is doing to the class, to himself, and to his future life. (113)

45. Talk over with him how he sees his own behavior in school and what satisfactions he derives from it. (115)

46. Keep him after school when he misbehaves. (118)

Situation I

Jeff, age 6, is in the first grade. He is an alert, bright boy. One morning he entered class with his hat, coat, boots and gloves on, and joined the group for the opening activity. (The children have lockers in the hall where they remove garments before entering the classroom.) He was then asked to go to his locker and hang up his outer garments. This he did. Nevertheless, for the next few days he came to class fully clothed, and had to be asked each time to go to his locker.

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

47. In the period devoted to Health, raise the question of why we take our wraps off indoors; draw out various members of the class and summarize the points. (121)

48. Refer the problem to the school psychologist for further action. (127)

49. Don't say anything further; let him sit with his outer garments on. (129)

50. Give him a gentle scolding. (130)

51. Report this to Jeff's parents and let them take it from there. (134)

Situation J

Eugene is ten years old but his physical growth is that of a well-developed thirteen-year old. He does not wait his turn in games and appoints himself as captain. At lunch time, he will demand or take cake or cookies from others. If anyone objects to his behavior or tells the teacher, he fights with him on the way home.

5 - Very appropriate
4 - Fairly appropriate
3 - So-so; possibly acceptable
2 - Fairly inappropriate
1 - Very inappropriate

52. Point out to him that just because he is bigger he has no right to pick on other children. (136)

53. At lunch time, forbid him to take food from other children; but at games and away from school, let the situation take care of itself. (139)

54. Hold a class discussion; encourage the pupils to formulate rules for taking part in games, behaving during lunch time, etc. (140)

55. Give Eugene some little extra duties like messenger to the office. (142)

56. Refer the problem to the school psychologist. (143)

57. Advise Eugene that no one will play with him or like him if he continues to act that way. (148)

APPENDIX B

TABLE 6

Means and Standard Deviations for the Items and Instrument-Variables

Item	Sample 1			Sample 2			Sample 3		
	Scale	Mean	S.D.	Scale	Mean	S.D.	Scale	Mean	S.D.
1	1	1.8	1.1	1	1.7	1.0	1	2.0	1.1
2	3	3.5	1.0	2	2.7	1.0	-	2.6	0.9
3	1-	4.1	1.0	1-	4.5	0.8	5	4.0	1.1
4	1-	4.2	1.0	1-	4.4	0.8	5	3.9	1.0
5	1-	3.8	1.2	-	4.0	1.1	5	3.5	1.1
6	1	2.0	1.1	1	1.8	1.0	1	1.9	1.1
7	1	1.6	1.2	1	1.2	0.6	1	1.4	1.1
8	1	2.0	1.2	1	1.6	0.9	1	1.5	1.0
9	1-	3.8	1.1	2	3.1	1.2	2	3.3	1.1
10	1	2.4	1.3	5	2.8	1.2	-	2.9	1.1
11	1	1.7	1.0	1	1.6	0.9	1	1.8	1.2
12	1	2.0	1.2	1	1.5	0.9	1	1.7	1.0
13	1-	3.9	1.1	-	4.2	1.0	2	3.6	1.1
14	5	2.2	1.2	3	2.3	1.2	1	2.0	1.0
15	-	2.6	1.3	5	2.8	1.2	5	2.5	1.2
16	1-	4.3	1.2	1-	4.5	0.8	1-	4.2	0.9
17	3	3.2	1.1	2	2.8	1.0	2	3.0	1.0
18	2	3.3	1.3	-	3.5	1.2	5	3.4	1.2
19	1	1.8	1.1	1	1.4	0.9	1	1.7	1.0
20	1	2.5	1.2	1	2.1	1.0	1	2.1	1.0
21	-	3.8	1.1	1-	4.4	0.9	5	3.6	1.2
22	1	1.9	1.0	1	1.7	0.9	1	1.7	0.9
23	1-	4.4	1.1	2	4.0	1.0	2	4.2	1.0
24	2	3.7	1.2	-	3.4	1.3	5	3.1	1.3
25	2	3.8	1.1	1-	3.9	1.2	5	3.2	1.3
26	4	3.8	1.0	1-	4.0	0.9	5	3.6	1.0
27	1	1.5	1.0	5	1.5	0.9	1	1.6	1.0
28	2	3.8	1.2	1-	3.9	1.2	2	3.7	1.2
29	-	3.2	1.1	3	3.3	1.1	3	2.9	1.1
30	3	3.0	1.3	2	2.7	1.3	4	2.8	1.2
31	3	3.7	1.0	2	3.1	1.0	4	3.1	1.2
32	6	3.8	1.2	4	4.5	0.8	2	4.3	0.9
33	4	3.9	1.1	4	4.4	0.8	2	3.9	0.9
34	-	3.6	1.2	2	3.5	1.1	2	3.6	1.0
35	2	4.2	1.0	2	3.8	1.0	2	4.0	1.0

TABLE 6, continued

Item	Sample 1			Sample 2			Sample 3		
	Scale	Mean	S.D.	Scale	Mean	S.D.	Scale	Mean	S.D.
36	1	1.6	1.1	1	1.4	0.9	1	1.4	0.7
37	5	1.9	1.2	3	2.0	1.2	1	1.8	0.9
38	1-	4.1	1.0	1-	4.4	0.9	2	4.4	0.8
39	3	3.7	1.2	2	3.5	1.0	4	3.3	0.9
40	1	1.5	1.0	1	1.4	0.8	1	1.6	0.9
41	4	3.9	1.0	1-	4.1	0.9	2	4.2	0.8
42	-	2.6	1.2	1	1.8	1.0	1	1.8	1.0
43	5	3.4	1.0	3	3.3	1.2	3	2.8	1.1
44	3	3.8	1.0	2	3.6	0.9	4	3.3	1.0
45	4	3.8	1.0	4	4.2	0.9	2	3.6	1.0
46	3	2.6	1.2	1	1.8	0.9	1	2.1	1.0
47	2	3.6	1.2	-	4.0	1.0	2	3.9	1.1
48	5	2.1	1.2	3	2.2	1.2	3	2.2	1.0
49	-	1.9	1.2	5	2.1	1.2	-	2.2	1.2
50	3	2.6	1.1	1	2.0	0.9	1	2.1	0.9
51	5	2.2	1.1	1	2.0	1.1	3	2.1	1.0
52	3	3.5	1.0	2	3.0	1.1	4	3.1	1.0
53	1	1.9	1.0	-	2.1	0.9	1	2.2	1.1
54	4	3.9	1.0	1-	4.1	0.9	5	3.6	1.0
55	4	3.2	1.2	4	3.8	1.1	2	3.8	1.1
56	5	2.8	1.2	3	3.0	1.2	3	2.6	1.0
57	3	3.2	1.1	2	2.9	1.1	4	2.9	1.1
58	-	10.7	4.2	-	9.6	4.5	-	11.9	5.2
59	-	1.4	0.2	-	1.5	0.2	-	1.4	0.2
60	-	-1.5	0.2	-	-1.6	0.2	-	-1.5	0.2

Note. Scale numbers correspond to the serial numbers of the first-order factors; thus the assignment of an item varies somewhat from one sample to another. An item appears on only one scale, generally that corresponding to the factor on which it had its highest loading. There were a few exceptions in each sample--for instance, to avoid making a small scale bipolar. The symbol "1-" refers to the negative pole of Factor 1.

APPENDIX C

TABLE 7

Means, Standard Deviations, Coefficients Alpha and Intercorrelations of Scales[a]

Scale	Items	Mean	S.D.	Alpha[b]	Intercorrelations[c] 1-	2	3	4	5
				Sample 1					
1 *	14	26.3	9.9	.89	-78	-41	03	-47	58
1-*	9	36.4	6.9	.86		59	25	68	-33
2 *	6	22.4	4.5	.71			22	52	-15
3	10	32.7	5.8	.71				24	03
4 *	6	22.6	4.1	.73					-26
5	6	14.5	4.5	.73					
C	35	139.1	21.5	.93					
				Sample 2					
1 *	15	25.1	9.1	.91	-73	22	38	-52	21
1-*	10	42.3	5.7	.81		01	-02	65	-27
2	12	38.6	7.1	.79			19	06	-17
3	6	16.1	4.8	.76				-03	17
4 *	4	17.0	2.5	.66					-13
5	4	9.1	2.9	.54					
C	29	124.2	15.4	.93					
				Sample 3					
1 *	18	32.5	12.2	.93		-44	52	10	-38
2 *	14	53.6	8.0	.84			-10	30	50
3	5	12.7	3.9	.78				16	-06
4	6	18.5	4.1	.71					19
5 *	10	34.5	6.9	.81					
C	43	167.8	22.2	.93					

[a]All scales here were factor-based: simple, unweighted scores based upon the assignment of items given in the footnote to Table 6. Scale C was a composite consisting of those scales followed by an asterisk above. Scoring of scale 1 was reversed for the composite.

[b]Coefficient alpha, an index of internal consistency of scale (after L.J. Cronbach, 1951).

[c]Decimal points omitted.